

ABSTRACT OF THE DISCLOSURE

A small antenna operating in multiple modes including three or more modes. There are provided an antenna that includes
5 a ground conductor having a ground potential, a single feeding point whose one end is formed by a part of the ground conductor, and a plurality of transmission lines to which RF power supplied to the feeding point is input, the transmission lines each radiating electromagnetic waves of three frequencies of three
10 modes into space. These transmission lines comprises a transmission line 41 that is connected to the feeding point at one end and to a branching point at the other end, a transmission line connected between branching points, and transmission lines connected to the branching points. The lengths of the
15 respective transmission lines are set so that impedance matching is performed at the feeding point with respect to a plurality of frequencies. The antenna is formed from an integrated metal plate.